Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Facilitating the Deployment of Text-to-911 and Other Next Generation 911 Applications	)	PS Docket No. 11-153
	)	
Framework for Next Generation 911 Deployment	)	PS Docket No. 10-255

REPLY COMMENTS OF SPRINT NEXTEL CORPORATION

I. INTRODUCTION

Sprint Nextel Corporation ("Sprint") hereby submits Reply Comments in response to the above-referenced proceeding. Sprint supports the ongoing efforts of standards organizations, public safety, and the industry as a whole to work toward deployment of a long-term Next Generation 9-1-1 ("NG9-1-1") system and commends the Commission for its efforts in gathering important information on the progress of these efforts. As discussed in its Comments, however, Sprint remains concerned that redirecting attention toward a short-term text-to-911 solution, particularly one based on SMS technology, will slow progress toward a long-term NG9-1-1 plan. Many commenting parties have expressed similar concerns. For this reason, Sprint urges the Commission to refrain from mandating an interim solution based on SMS technology. Should the Commission decide to move toward requiring an interim text-to-911 solution, Sprint recommends that the Commission look to IP Relay as an appropriate solution or facilitate development of an interim solution through an industry standards group created expressly for this purpose.

II. DISCUSSION

A. Mandating implementation of an interim solution based on SMS technology will delay long-term progress.

Proponents of SMS-to-911 texting apparently believe that such a solution would be easy to implement given the fact that SMS is already in use today.[1] As Sprint and other commenting parties have explained, however, the industry would have to resolve several technical issues before the "interim" SMS approach could be tested to determine its viability.[2] Unfortunately, there is no guarantee that the technical problems could be resolved rapidly, if at all.

For example, location information is not included with SMS text messages and would not be available for PSAP routing or position determination for dispatch purposes. Moreover, CMRS providers would have to determine how to prioritize SMS-to-911 calls, since currently SMS messages do not receive "head of the queue" status on carrier networks. Plainly these are fundamental problems that must be addressed before SMS can be considered as an efficacious solution.

Of course, it will take time to resolve these issues. Standards would have to be written and approved by the industry, and a solution based on the approved standards would have to be tested perhaps several times, especially if the tests expose unforeseen problems with the technology, as is typically the case. Once the technology is successfully tested, it would then have to be deployed. Clearly, none of these steps can happen overnight. Indeed, Verizon and

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[1] Comments of Telecommunications for the Deaf and Hard of Hearing, Inc.; Deaf and Hard of Hearing Consumer Advocacy Network; Association of the Late-Deafened Adults, Inc.; Deaf Seniors of America; National Association of the Deaf; Hearing Loss Association of America; cerebral Palsy and deaf Organization; Communication service for the Deaf; and California Coalition of Agencies Service the Deaf and Hard of Hearing (collectively, the "Consumer Groups") at 7; Comments of Neustar at iii.

[2] Sprint Comments at 10-14; Comments of AT&T at 1-2; Comments of T-Mobile at 10-11; Comments of Motorola Mobility at 3-4; Comments of TIA at 6; Comments of CTIA at 6-11.

Verizon Wireless explain that, "[i]ncorporating an SMS-based solution into a new standards development process, … could not realistically be completed until 2014 at the earliest, with yet an additional period needed for service providers to upgrade their SMS architecture and platforms and for PSAPs to upgrade their networks and call center capabilities."[3] In a similar vein, T-Mobile points out that "… no set of modifications to the existing CMRS SMS networks can be implemented rapidly, as all would need to be tested to make sure that they can actually work within an operational 9-1-1 setting, and then carriers and PSAPs would have to install the necessary capabilities. That process by itself is likely to take at least a couple of years, and would thus consume the bulk of the interim period prior to SMS being deployed."[4]

PSAPs also would face significant hurdles in attempting to implement an SMS-to-911 solution. "[M]any PSAPs do not have the ability to receive text messages via their current call handling equipment and software. There would be significant costs involved to implement this capability."[5] To make matters worse, the PSAPs would have to implement this capability at a time when resources are scarce.[6] First responders would likely have to change their processes and procedures to handle a new form of communication and will face challenges, such as attempting to interpret "text lingo" or jargon and addressing language barriers that may occur if the person texting uses a language other than English. Simply put, using SMS to contact PSAPs would bring a new form of communication to public safety call handlers that does not exist today and would require a review of operational and personnel processes and procedures.

Given that the process for developing and deploying a so-called "interim" solution is likely to take several years and will likely involve significant expenditures, the industry will be less able to

[3] Verizon Comments at 7.
[4] T-Mobile Comments at 12.
[5] APCO Comments at 5.
[6] Blooston Rural Carriers Comments at 2; T-Mobile Comments at 12.

devote time and resources toward developing a long-term NG9-1-1 plan. Even if the industry could muster the resources to devote to developing a NG9-1-1 model, Sprint would assert that once an SMS solution is in place, it will be very difficult to shut down the technology and move toward a new NG9-1-1 model. As a result, consumers may be denied the advantages of a NG9-1-1 system.

At the very least, PSAP transitions from interim solutions to NG9-1-1 solutions are likely to be inconsistent. Multiple PSAP deployment categories will exist including those only supporting an SMS-to-911 interim solution, those only supporting long-term NG9-1-1 solutions, and those that support both. This will add potential device and carrier network complexity to the extent a device and carrier network may have to support both SMS-to-9-1-1 and NG9-1-1 solutions and determine on a PSAP by PSAP basis which solution the PSAP supports.[7] Moreover customers would likely be confused since some jurisdictions may be unwilling or, because of resource constraints, unable to deploy NG911 technology and continue to rely on the "interim" SMS solution. This could be particularly puzzling for consumers visiting or traveling outside their home area.

B. The viability of vendor proposals is based on limited data and assumptions that have not been clearly explained.

The Commission should not mandate that carriers purchase a proprietary vendor solution, such as those proposed in vendor Comments, particularly when there has been very limited data to demonstrate that such proposals will work on a national level. The NPRM discussed only four limited trials in four counties. Of these trials, only one included location information and that was a "simulation" rather than a true trial that included members of the public. Because each of the trials involved one PSAP only, PSAP routing was not a factor in these trials. In addition,

[7] Based on the current lack of uniformity in technology deployment at the PSAP level, there are likely to be problems identifying which PSAPs support an SMS-to-911 interim solution.

dispatching and finding an emergency without detailed location information may be easier in some jurisdictions than others and the trials discussed have not taken this into account.

Vendor proposals submitted as Comments in this proceeding make certain assumptions that require further explanation. For example, according to Neustar, "The PSAP is able to query the ALI system for location, which, if initiated early in the session, will return a cell based location but in most cases will return the actual caller location if tried later in the session, using the same mechanisms used to determine the caller's location for a voice call."[8] Neustar's description, however, fails to address the fact that the ALI database does not contain the location information associated with a text message. Neustar does not explain how this information would be inserted into the ALI database for use by the PSAP.

The proposal described by Intrado in its comments would require the installation of extensive infrastructure to adapt wireless networks to the solution. Whether this proposal could ultimately be successful nationwide as an interim text-to-911 solution cannot be gauged, since testing has been very limited to date. Similarly, the proposal described by commenter Telecommunications Systems, Inc. ("TCS"), would also require infrastructure to be installed by TCS that would enable TCS to query the wireless carrier's network, which will require added infrastructure. All of the vendor proposals would require time for both testing and deployment, and these timeframes cannot yet be accurately predicted.

True Position argues carriers will be able to provide location information, because this will be obtained when a caller is in "idle mode" after sending a message. However, not every handset device goes into idle mode after sending a text message. In addition, forcing handsets into idle mode for this purpose would significantly impact battery life. If the handset is engaged

[8] Neustar Comments at 3-4.

in a call, which could potentially be related to the emergency being reported, forcing the handset into idle mode after sending an SMS-to-911 (while on the call) could cause service interruptions or even force a disconnect for the call in progress. True Position acknowledges that, "Work would be needed on both operator and PSAP systems to initiate the location procedure and link the location with the emergency data message."[9]

Twilio comments that, "Using Twilio, for example, a company could conceivably create a text-to-911 product that could be sold to PSAPs that would facilitate the use of text messaging to obtain emergency services."[10] Twilio, however, does not provide any information showing that creation of such a product is actually feasible. Instead, Twilio seems to be advocating for technology neutral rules in order to allow it an opportunity to develop such a product in the future.

C. IP Relay has been shown to be an appropriate interim solution.

After completing an in-depth analysis of multiple commercially-available technologies that could be utilized for an interim solution, the Alliance for Telecommunications Industry Solutions ("ATIS"), through its Interim Non-Voice Emergency Services ("INES") Incubator, recommended IP Relay as, "…the only interim solution that meets most of the key criteria, including the June 30th, 2012 deployment date that members of the ATIS INES felt critical for an interim solution."[11] Other commenters have also highlighted the advantages of an interim solution using IP relay.[12] While none of the available technologies examined by the ATIS INES Incubator met all the evaluation criteria, IP Relay was found to have the least number of

[9] True Position Comments at 3.
[10] Twilio Comments at 4.
[11] ATIS Interim Non-Voice Emergency Services ("INES") Report and Recommendations ("ATIS INES Report") dated December 12, 2011 at 16.
[12] T-Mobile Comments at 13-16; TIA Comments at 6.

limitations for a text-based communication to 9-1-1 strictly for individuals with disabilities and was shown to have excellent potential for universal implementation in the very near term. The IP Relay solution is currently available and could continue to be used for longer periods of time by those jurisdictions not ready to migrate to NG9-1-1. IP Relay is also compatible with multimedia emergency services.[13]

D. If the Commission moves in the direction of adopting an interim solution, it should promote the development of such a solution as part of a collaborative effort undertaken by the industry.

Should the Commission find that additional work is needed to evaluate and develop an interim solution other than IP Relay, the Commission should promote development of an interim solution as part of a collaborative effort undertaken by the industry and public safety. A new entity should be formed and should be tasked with the specific purpose of coordinating a collaborative effort to develop standards for an interim solution. In addition, reasonable and realistic timeframes should be established for the achievement of milestones related to an interim solution, realizing that many parties would need to work together to arrive at any solution.

E. Non-Service Initialized Phones should not be included in any requirements that may be adopted for a text-to-911 solution.

Sprint agrees with those commenters who have argued that non-service initialized phones should not be required to be supported by SMS-to-911 or other text-to-911 solutions due to potential security issues and concerns related to prank calls/texting.[14] Because of the anonymous nature of texting and lack of location information, existing problems with prank calls will only grow worse, because prank callers/texters can text without being identified. Valuable PSAP time and resources would be wasted in attempting to handle these communications.

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[13] ATIS INES Report at 18.
[14] Motorola Mobility Comments at 4-5; United States Cellular Comments at 4-5.

F. Requiring Wireless Emergency Prioritization is not likely to produce the desired result.

Sprint agrees with those commenters who argue wireless prioritization will not solve the problem of handling calls during a disaster scenario because the bottleneck that impacts consumers' ability to reach emergency services is often found at the PSAPs.[15] As Sprint discussed in its Comments, the capacity limitations of the dedicated trunks would continue to be a factor even if wireless prioritization were put in place.[16] Further, there are practical staffing limitations that impact a PSAP's ability to process and handle calls. Consumers need to understand that calls to 9-1-1 should be reserved for true emergencies. Other avenues and innovations could play an important role in educating the public about a widespread emergency and could potentially reduce calls to emergency services for information purposes. Furthermore, prioritization of 9-1-1 calls could serve to block other important and perhaps critical communication efforts between public safety officials that may be attempting to resolve the actual emergency being reported.

[15] AT&T Comments at 6-7; T-Mobile Comments at 17.
[16] Sprint Comments at 15-16.

III. CONCLUSION

For the reasons stated herein and in Sprint's Comments filed in this proceeding, the Commission should not require an interim text-based 9-1-1 solution. The Commission should instead work to facilitate cooperation by and between the many participants in the telecommunications industry and the public safety community in arriving at a long-term solution that will help satisfy the needs and concerns of the public, while adhering to technological standards that can ensure universal compatibility, resilience and longevity of the solution.

Respectfully Submitted,

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